

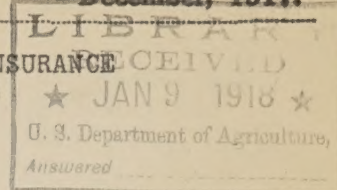
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MONTHLY LETTER OF THE BUREAU OF ENTOMOLOGY
UNITED STATES DEPARTMENT OF AGRICULTURE

Number 44.

December, 1917.

LIBERTY BONDS REPRESENT THE MOST FAR-REACHING INSURANCE
(FOR SALE AT ANY BANK IN THE UNITED STATES.)

WATCH FOR THE NEW LIBERTY LOAN!

"We will not fail! I would lose something of my trust in the justice of Almighty God if I doubted the ultimate triumph of our Righteous Cause. In the faith of the Puritans, in the valor of the Cavaliers, in the endurance of the Patriots from Concord to Yorktown through bleeding marches and starving days, in the unspeakable agony of Belgium, in the splendid and unconquerable courage of France, in the daring and the suffering of Italy, in the grim and uncomplaining sacrifices of Great Britain and her Colonials from the four quarters of the globe, in memory of the women and children of the Lusitania and the crews of peaceful merchantmen done to death by the assassins of the sea, in punishment of the lawlessness of the German government and the perfidy of her broken promises, in vindication of our right to order our ways as we choose, and in loyalty to the sovereignty of man above the usurpations of royal pretenders, **let us take heart to strike in the full measure of our strength, to the limit of our energies and resources, as becomes the sons of men whose name and fame we bear.**" (Hon. Clarence Ousley, Assistant Secretary of Agriculture. Address to the New England Society of St. Louis, at St. Louis, Mo., Dec., 21, 1917.)

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THE WAR LIBRARY.

The Library War Service fund now exceeds a million and a half. That is being applied rapidly to the purchase of books for the camp libraries but even with the generous discounts allowed by the publishers the demands of the cantonment libraries far exceed the supply of books. All those who wish to purchase books outright for the libraries or who can spare from their own libraries technical books, French readers and dictionaries and good novels are urged to give them. Members of the Bureau living in Washington may bring their books to the Bureau library or to the Library of the Department of Agriculture, whence they will be forwarded to those in charge of the work.

SPECIFIC REQUESTS FOR BOOKS AND READING MATTER.

A request has recently been received from the commanding officer of the 20th Engineers, which is in camp at the American University, for reading matter for men, especially for recent periodicals. These may be brought to the Department Library: a truck from the camp will call for them once a week until further notice.

The hospitals in Washington are finding light weight scrapbooks very useful in entertaining the sick and convalescent soldiers who are too weak to hold anything so heavy as a magazine. A number of blank books for this purpose have been made up for the Department book committee: these with suggestions for filling will be supplied by the Library of the Department to those who care to make them. Apply to Miss Mary G. Lacy, Library, Department of Agriculture.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE
AFFILIATED SCIENTIFIC SOCIETIES.

The seventieth meeting of the American Association for the Advancement of Science and the meetings affiliated scientific societies, including the Thirtieth Meeting of the American Association of Economic Entomologists, were held in Pittsburgh, from December 28 to January 2, 1918, inclusive.

THE PREPARATION OF MANUSCRIPTS FOR FARMERS' BULLETINS.
(BY MR. W. R. WALTON, ENTOMOLOGIST IN CHARGE,
CEREAL AND FORAGE INSECT INVESTIGATIONS)

The following suggestions for the preparation of manuscripts for Farmers' Bulletins have been prepared in consultation with the Bureau Editor with a view to expediting the preparation of manuscripts for publication. Instances, of course, will occur where some of the suggestions can not be followed, but if the plan outlined can be followed in a general way it will result not only in a very great reduction of the labor entailed in editing such papers but also in hastening the publication of any manuscript which may be submitted for this purpose.

Title Page.

A standard title page has been adopted by the Department, the character of which may be seen by referring to one of the more recent bulletins; for instance, Farmers' Bulletin No. 875. A suitable photographic illustration should be furnished for this title page by the author. This should show the characteristic work of the insect when possible, or depict remedial operations. A drawing may be substituted for the photograph, providing it is of appropriate character, but ordinarily a good photograph is preferable. Photographs having a human interest, such as those on the title pages of Farmers' Bulletins Nos. 819 and 867, can often be used to good advantage.

Statement for Back of Title Page.

An introductory or summary statement should be drawn up and submitted by the author. It should be possible for the investigator to prepare a more telling summary than is possible for any one else, because of his personal knowledge of the problem involved. A study of recent Farmers' Bulletins will show the scope and character of these statements.

List of Illustrations.

A numbered list of illustrations with legends should accompany all manuscripts. This is absolutely necessary for the use of every person who handles the manuscript before it is printed, and although this list does not appear in the bulletins as printed, it is imperative that one be furnished by the author. One reason for this is that it prevents any misunderstanding as to the number, sequence and character of the illustrations accompanying the manuscript.

Illustrations.

All illustrations should be mentioned specifically by number in the text,

and each photograph and drawing should bear a number corresponding to that in the list just mentioned, and its proper legend. The author should attend to this; if it is not done it entails unnecessary work for the editors and may cause regrettable errors. Furnish only illustrations of the highest possible quality. The standard can not be set too high. A poor illustration often is worse than none at all, because it is misleading. A few first-class pictures showing the adult, egg, larva, and pupa stages, together with one showing the characteristic work of the insect, are worth double the number of poor illustrations which are not to the point. Where photographs are to be made showing persons engaged in remedial work or other activities it should be borne in mind that they are not there primarily "to have their pictures taken" and their postures and expression should indicate that they appreciate this. Where possible, a sketch map showing the geographical distribution of the species involved is most desirable. It may be in pencil, if necessary, as it can easily be put in printable shape in Washington.

Subject Matter.

Above all things, be brief. See your subject simply, outline it concisely. Use few technical terms--only those that are absolutely necessary--and explain the meaning of these as you proceed. Although it is not desirable to lay down any hard and fast rule on the subject, the matter in the bulletin should be arranged about as follows:

Table of Contents:—The primary, or perhaps also the secondary, headings of the various sections of the bulletin only need be mentioned under "contents." They should be arranged in double columns.

Description of the Stage which is Most Injurious:—Include no characteristics which can not be seen by the unaided eye, and, as previously stated, avoid technical terms wherever possible.

Distribution:—Furnish a map where possible. Do not go into details here regarding particular outbreaks. Simply tell where the insect occurs, and in what character of country, when this is limited by topographical or soil conditions.

Economic importance:—A brief history of the more important outbreaks may be included here, and it is also important to state, when possible, the actual loss, in money or in terms of bushels, tons, etc., of the crop attacked.

Manner of Injury:—This information may be given in a circumstantial manner, care being taken to avoid the inclusion of irrelevant matter. Do not mention names of investigators, or attempt to give credit, as this is not permissible in a Farmers' Bulletin.

Seasonal History:—State first whether the insect has a complete or incomplete metamorphosis. Couch this statement in simple words. Then outline the transformations in brief detail, stage by stage, afterwards going into the necessary details of each stage.

Conditions Favorable to Outbreaks:—By the exercise of a little care, this statement can be rendered interesting and useful and it should, if possible, contain information which will allow the reader to be forewarned of an outbreak.

Natural Enemies:—Under this head the principal insect and vertebrate enemies may be described briefly, and illustrations of each form should be supplied when possible. It is not advisable, in the present state of our knowledge, to mention fungoid enemies of insects in popular publications. All evidence so

far adduced points toward the impossibility of human control so far as these organisms are concerned, and a repetition of the errors made in connection with the chinch bug and grasshopper fungoid parasites is extremely undesirable.

Unless the scientific name of a parasite is known it should not be mentioned. All mention of parasites which are of doubtful benefit should be eliminated.

Control Measures:- Information included here should all be of a positive character; that is to say, it is undesirable to include statements regarding measures which have been found to be of little or no practical use.

Summary of Control Measures:- This should consist of a very brief-epitome of the subject, arranged preferably by numbered paragraphs. Sometimes, however, as in the case of the shorter Farmers' Bulletins, the summary of control measures may be included in the statement for the back of the title page.

LIBRARY

Miss Mabel Colcord, Librarian.

NEW BOOKS.

- Conradi, A. F. Farm spies; how the boys investigated field crop insects, by A. F. Conradi and W. A. Thomas. New York, 1916. 165p. illus.
- Funkhouser, W. D. Biology of the Membracidae of the Cayuga Lake basin. Ithaca, N. Y. June 1917. p. 177-445. (Cornell University Agr. Exp. Sta. Memoir 11) Bibliography, p. 433-445.
- Goot, P. van der De zwarter cacao-mier (*Dolichoderus bituberculatus* Mayr) en haar beteekenis voor de cacao-cultuur op Java. Batavia, 1917. 142p. illus. 2 pl. (Mededeelingen van het Proefstation Midden-Java No. 25)
- Gussow, H. T. *Empusa muscae* versus *Musca domestica* L. Annals of applied biology v.3, no., 4, p. 150-158, pl. XXI, April 1917.
- Ontario Entomological Society. 47th Annual Report, for 1916. Toronto, 1917. il.
- Shelford, V. E. Color and color-pattern mechanism of tiger beetles. Urbana, Ill., Apr. 1917. 134p. 32 pl. (3 col.) (Illinois biological monographs v.3, no. 4, p. 399-528) and Contributions Contributions from the Zoological Laboratory, University of Illinois no. 93. Bibliography p. 68-70.
- Vaughan, V. C. Infection and immunity. Chicago, 1915. 238p.
- Weed, H. E. Spraying for profit. Ed. 21. Cleveland, Horticultural Publishing Co., 1917. 64p. illus.
- Willcox, C. D. A French-English military technical dictionary with a supplement containing recent military and technical terms. Washington, Government Printing Office, 1917. 582p.

BEE CULTURE

E. F. Phillips, Apiculturist in Charge.

E. F. Atwater spent the month in northern California. He will go to Arizona and New Mexico in January and then return to California.

J. H. Wagner of Colorado has been appointed Special Field Agent for work in Montana, northern Idaho, Washington and Oregon.

C. E. Bartholomew spent the month in Wyoming and will go to Colorado about the first of the year.

E. W. Atkins attended the Iowa Beekeepers' Association meeting and spent the month in Iowa and will go to Kansas on January 7-8 to attend the State Beekeepers' meeting, thence to Missouri for extension work.

G. C. Mathews attended the meeting of the Minnesota Beekeepers' Association on December 4-5 and that of the Wisconsin Beekeepers' Association on December 6 and 7. He then remained in Wisconsin for extension work.

P. W. Erbaugh finished his work in Illinois on December 15 and left for Michigan. Hereafter he will work in Michigan and Indiana.

David Running of Michigan has been appointed Special Field Agent and left for extension work in New York on December 26. He will remain in New York during his whole appointment, he having accepted appointment only for the winter season.

Kennith Hawkins continued extension work in Florida throughout the month.

C. L. Sams was in Washington for several days for conference.

E. L. Sechrist attended the meeting of the Maryland Beekeepers' Association on December 20.

A series of mimeographed memoranda to extension workers in beekeeping will be issued in which various questions pertaining to beekeeping will be discussed, as a guide to the men in planning their work. These will not pertain to administrative matters but rather to the teachings of the office on disputed questions in beekeeping practice. Five such memoranda were issued in December. Each memorandum is marked "Not for publication."

SOUTHERN FIELD CROP INSECT INVESTIGATIONS.

W. D. Hunter, Entomologist in Charge.

Doctor Hunter has been in Beaumont, Texas, for practically the entire month in connection with the work of the Federal Horticultural Board on the pink bollworm.

Doctor Pierce has been on leave of absence from December 5 to 27.

D. L. Van Dine has been tendered a commission as first lieutenant in the Medical Department of the United States Army.

Elmer Johnson, of the Office of Public Roads and Rural Engineering, recently spent several days at the boll-weevil laboratory at Tallulah, in cooperation with B. R. Coad on the improvement of dusting machinery.

Frank S. Chamberlin went to his home in Farmington, Mass., for the purpose of enlisting in the army before December 15.

The following agents have been temporarily transferred to the Federal Horticultural Board for work on the pink bollworm in Texas:

U. C. Loftin,
H. P. Smith,
K. B. McKinney,
Tobert Slack.

E. A. McGregor has just returned from a trip in Mexico where he spent several weeks making observations in regard to cotton insects in the cotton fields of Lower California. Some of the points visited were La Paz, Guaymas, and Hermosillo.

Max Kisliuk has taken leave of absence from December 27 to February 12 for the purpose of returning to the University of Ohio to complete his work for masters degree.

C. S. Whittington, of the boll-weevil laboratory, has resigned from the Bureau.

Dr. James A. Nelson, who was temporarily stationed at Tallulah, La., has returned to Washington.

DECIDUOUS FRUIT INSECT INVESTIGATIONS.
A. L. Quaintance, Entomologist in Charge.

John B. Gill, in charge of the Bureau work on pecan insects, with headquarters at Monticell, Fla., is in Washington to prepare reports and manuscripts on his work.

E. B. Blakeslee has returned to Washington for the preparation of notes and manuscripts in connection with his investigations of the peach borer.

Wm. O. Ellis, who has been stationed at Riverton, N. J., and engaged in an investigation of the Japanese beetle, *Popillia japonica*, has returned to Washington for the preparation of reports on his work.

W. M. Davidson has been temporarily transferred to Alhambra, Calif., from his permanent headquarters at Sacramento, where he will be engaged for some weeks in observations on various economic Coccinellids.

W. J. Price, formerly connected with the Virginia State Crop Pest Commission, and a graduate of the Virginia Polytechnic Institute, has accepted a temporary appointment as Special Field Agent under the Food Production Act, and will be engaged in extension work in Virginia in connection with deciduous-fruit insect control, with headquarters at Blacksburg, Va.

Robert M. Fulton, a graduate of the Washington State College, has been appointed Special Field Agent under the Food Production Act for work in deciduous-fruit insect control in Washington State, with headquarters at Pullman.

FEDERAL HORTICULTURAL BOARD
C. L. Marlatt, Chairman.

The pink bollworm situation in Texas remains much the same as reported last month. There have been assembled, for the direction of the cleanup work about Trinity Bay, nearly forty men of technical training and a labor contingent varying from several hundred to two or three thousand. Mr. Busck has made a second trip to Texas and Mexico to see, at first hand, the actual conditions about Trinity Bay and particularly to investigate a large ranch in Mexico at Santa Monica, nearly opposite the Port of Del Rio. This ranch was known to have been planted with seed from the Laguna and proved, as anticipated, to be badly infested with the pink bollworm. In accordance with the general scheme of control, it is anticipated that the cessation of growth of cotton in this ranch can be brought about in cooperation with the owner. Mr. Beattie has returned from the Texas border where he has been inspecting the traffic control survey.

The research station in Mexico, alluded to in the last number, has been definitely established under the leadership of Mr. Busck. Commissions for this work have already been approved by the Secretary in relation to Mr. Busck and Mr. Eduardo G. Tejada, a citizen of Mexico, who will be in local or field charge of the station. Two additional technical assistants will be provided, the commission, one of whom, Mr. Loftin, has already been approved by the Secretary. This station will be a cooperative one between the Board and the Bureau of Entomology.

The reorganization of this work has led to the closing of the official station at San Antonio. Headquarters will now be at Beaumont until the Trinity Bay emergency has been fully met.

FOREST ENTOMOLOGY

A. D. Hopkins, Forest Entomologist.

Doctor Hopkins has completed his manuscript for a bulletin, entitled: "Natural Events and Laws as Guides to Research and Practice in Agriculture."

Messrs. Edmonston and Hofer have been transferred from Colorado Springs, Colorado to a temporary field station at Tucson, Ariz., where they are engaged in a study of the insects which are destructive to mosquito cordwood.

Forest Insect Survey in California.

The Assistant Forest Entomologist, J. M. Miller in charge of the forest insect field station at Ashland, Oregon, has submitted his report on the Forest Insect Survey of California so far covered. This survey was undertaken at the solicitation of several private owners in the region and was carried out under cooperative agreement between the Forest Service of this Department, the National Park Service of the Interior Department and private owners, under the direction of this Bureau with Mr. Miller immediate charge and assisted by the field force attached to the Ashland, Station. The area, timber, costs and losses involved in this survey is thus summarized:

VALUE OF THE 1917 INSECT LOSS:- Assuming an average value of \$2.25 per M for the sugar pine and yellow pine combined, the insect loss in the 1917 epidemic in the commercial timber amounts to \$23,000 on National Forest lands, and \$15,000 in the private holdings. The 1917 epidemic loss in the Sequoia National Park approximates \$4000, no epidemic losses now occurring on the Yosemite National Park. The 1917 loss on the survey area as a whole, including both epidemic and epidemic areas, private and Government lands, approximate \$60,000.

CONTROL MEASURES:- Control of the 1917 epidemic infestations in the commercial pine timber on the survey area, in accordance with the methods advocated by the Bureau of Entomology, will cost from \$30,000 to \$40,000 on the government holdings. and from \$15,000 to \$20,000 on the private lands.

The complete working of all the survey area in a single year will yield by far the best control results, but such a procedure involves the difficulty of efficiently handling control work over such a large area with a limited number of men of requisite experience.

LIMITATIONS ON THE DATA:- From year to year there is quite likely to be some fluctuation in the amount of the infestation on the 1917 survey area. As a consequence, a change of insect conditions within the next few years and a delay in the inauguration of the recommended control work will necessitate corresponding changes in the estimated cost of control measures.

The cost of control, even if it apparently balances the 1917 losses, will be more than balanced by its effectiveness for years to come.

Three species of barkbeetles were found primarily responsible for the loss indicated:

The western pine beetles (*Dendroctonus brevicornis* Lec.) on yellow pine.

The mountain pine beetle (*Dendroctonus monticolae* Hopk.) sugar pine and occasionally yellow pine.

The Jeffrey pine beetle (*Dendroctonus jeffreyi* Hopk.) on Jeffrey pine.

A Summary of the Insect Loss
Conditions revealed by the
California Insect Survey, 1917.*

AREA AND VOLUME INCLUDED IN SURVEY:- This survey included the pine belt on the western flank of the Sierra Nevada Mountains of California from the Rubicon River as far south as the South Fork of the Tule River. Therefore, practically all the private and government owned yellow pine, Jeffrey pine, and sugar pine within the Eldorado, Stanislaus, Sierra, and Sequoia National Forests, and the Yosemite and Sequoia National Parks was covered. This represented a stand of 23½ billion feet, or 18 per cent of the private and government owned timber in California,

COST OF 1917 SURVEY AND ESTIMATE OF COST FOR COMPLETING THE STATE:- Including both the field expenses and the salaries of all the men engaged on the survey, the 1917 survey cost was \$3200. Using this figure as a basis, the remainder of the pine timber of the State can be similarly covered at a cost of \$13000, about \$7000 of which consists of estimated field expenses. If only field expenses are to be paid by the cooperators, it will be necessary to secure about \$3500 from private owners for the examination of their lands.

AMOUNT AND DISTRIBUTION OF THE INSECT LOSS:- Over 19 billion feet of the pine timber of the survey area have been divided into 65 so-called control units which will be used in the formulation of an insect-control policy. About 40 per cent of this pine timber is suffering from epidemic infestation, four-fifths of this epidemic loss being in timber which is both commercial and accessible and confined to 26 control units with a total acreage of 349,000 acres. In 1917 this epidemic loss averaged less than one-half of one per cent of the total stand, although on certain areas it was as high as one per cent. These losses were proportionately as great in the private timber as in the government holdings. About three-fourths of the total insect loss on the whole survey area is confined to the epidemic infestations which by area constitute less than one-third of the survey area. These epidemics are confined to the watersheds of the San Joaquin, Kings, Kaweah, Tule, and Kern Rivers.

Approximately 60% of the pine timber within the control units contained only epidemic or normal infestation, in which the 1917 loss was usually not more than one-tenth of one per cent of the total stand.

In case of the epidemic units a sufficient percentage of the infestation is recommended destroyed to reduce the insects to a point where their depredation will be kept at a minimum by the same natural agencies which at present control them on the endemic areas.

Special reports on their respective areas were sent to the National Park Service and the private owners. Full general reports were made out for the consideration of the Forest Service and this Bureau.

STORED PRODUCT INSECT INVESTIGATIONS.
E. A. Back, Entomologist in Charge.

F. B. Milliken who has been stationed in Wichita, Kans., during the past several years, has been transferred to New Orleans, from which point as headquarters, he will make a survey of mill and grain storage conditions in the surrounding region.

* FOOTNOTE The Bureau of Entomology has prepared a separate brief summary of the strictly entomological phases of the survey.

Dr. Back has recently returned from Louisiana and Florida points. Considerable time was given to observing the harvesting and storage conditions of corn. Frequently corn that ripened in July and August was found still unharvested in the field and suffering unnecessary and excessive loss through insect attack. In some neglected bins, corn which had ripened in June, was found to be completely destroyed by the Angoumois grain moth and rodents.

While in Plant City and Tampa, an examination was made of the important and interesting work of J. E. Graff with the X-ray as a means of controlling stored product insects.

TROPICAL AND SUBTROPICAL FRUIT INSECT INVESTIGATIONS
C. L. Marlatt, Entomologist in Charge.

R. S. Woglum has been ordered to Washington for the purpose of consultation with the Assistant Chief of the Bureau and the preparation of reports.

W. W. Yothers, long a confirmed bachelor, has joined the ranks of bachelors.

H. F. Dietz of the Federal Horticultural Board in cooperation with this Bureau has been making some investigations of ornamental cultures under glass at various points in the Ohio Valley.

Harold Morrison has been given the title of Entomological Explorer in charge of Tropical Insect Survey.

TRUCK CROP INSECT INVESTIGATIONS
F. H. Chittenden, Entomologist in Charge.

H. K. Laramore, a special field agent, who has been engaged in extension work in Texas with headquarters at College Station, has resigned to accept a call to the colors from his home at Knox, Ind.

R. C. Pickett, of Wisconsin, has been engaged to take the place of Mr. Laramore for service at College Station, Texas.

E. G. Smyth, who has been engaged in extension work in Texas, has accepted a position with the State of Texas as extension service entomologist.

D. E. Fink, who has been in charge of the Virginia Truck Experiment Station, Norfolk, Va., for several years past, will take charge of a new station to be established at Riverton, N. J. He will work on the potato aphid, spinach aphid, and on root-maggots and other insects which particularly effect vegetable and truck crops under ground.

T. H. Jones who has been at Washington, D. C., for consultation has returned to Baton Rouge, La., his permanent headquarters.

C. H. Popenoe is on a trip through the Gulf States, and is visiting extension workers and state entomologists, and is also engaged in a preliminary survey of the sweet-potato weevil (*Cylas formicarius*). He has discovered new localities for this species, and among other important insects in Florida has observed an unusual work of mole-crickets in hollowing out sweet potatoes, ruining them for all practical purposes.

CEREAL AND FORAGE INSECT INVESTIGATIONS.
W. R. Walton, Entomologist in Charge.

H. L. Dozier, located at Tempe, Ariz., resigned from the service on December 15. Mr. Dozier goes to Florida in order to complete his work for a doctor's degree.

C. H. Gable, formerly Commissioner of Agriculture on the Island of Madeira, has been appointed specialist in alfalfa-insect investigations and assigned to the Tempe, [Ariz.] field station.

E. O. G. Kelly, who for the past ten years been connected with the Bureau of Entomology, and who for several years was in charge of the field station located at Wellington, Kansas, resigned from the service on December 27 for the purpose of entering private business.

J. R. Horton has been placed in charge of the laboratory at Wellington, Kans.

R. E. Snodgrass has been assigned to duty with this branch.

H. L. Parker, formerly attached to the field station located at Hagerstown, Md., has been commissioned a first lieutenant of infantry and ordered to report at the Petersburg, Va., cantonment.

H. B. Parks has been appointed Special Field Agent for duty in the Federal Entomological Extension Work and will be located in Texas.

A. H. Sherwood was appointed Special Field Agent in Federal Entomological Extension Work and will be located in South Dakota beginning about January 1. Mr. Sherwood expects to pay especial attention to the control of grasshoppers in that State.

H. L. Seamans has been appointed Special Field Agent in Federal Entomological Extension Work for duty in Montana.

A conference relative to methods of Hessian-fly control will be held in Washington January 3 to 5, 1918. Representatives of the Bureau of Entomology and the Bureau of Plant Industry will participate.

CONTRIBUTIONS ARE SOLICITED.

Funds are needed for knitting, surgical dressings, garment making, housing, entertainment, books, scrap books for hospitals, and war orphans, CONTRIBUTIONS ARE DESIRED FROM ALL EMPLOYEES OF THE BUREAU, BOTH IN WASHINGTON AND IN THE FIELD, ALSO FROM THEIR FAMILIES AND FROM ANYONE INTERESTED IN THE WORK.

Send your contributions to Mrs. H. S. Bishop, Bureau of Entomology, and specify, if you have any preference, to what purpose you desire the contribution to be put. NO AMOUNT IS TOO SMALL!

